What is claimed is:

(Claim 1) A clutch assembly for a fan drive system of an engine comprising:

a translatable clutch housing coupled to a fan;
a rotating shaft coupling a drive pulley of the engine;
a liner residing between and engageable with said translatable clutch housing and said rotating shaft;
a clutch spring engaging said translatable clutch housing with said rotating shaft; and
a spring carrier retaining at least a portion of said clutch spring and comprising at least one passage for fluid pressure adjustment within a clutch spring area.

(Claim 2) An assembly as in claim 1 wherein said at least one passage comprises at least one of a groove, a channel, a slot, and a hole.

(Claim 3) An assembly as in claim 1 wherein said at least one passage extends axially fore and aft across said spring carrier and allows for passage of a fluid therein.

(Claim 4) An assembly as in claim 1 wherein said at least one passage is formed integrally within a wall of said spring carrier.

(Claim 5) An assembly as in claim 1 wherein said at least one passage is formed integrally on an internal side of said spring carrier.

(Claim 6) An assembly as in claim 1 wherein said at least one passage resides between said spring carrier and a pneumatic transfer conduit.

(Claim 7) An assembly as in claim 1 wherein depth of said at least one passage is larger than a clearance between said spring retainer and a pneumatic transfer conduit.

(Claim 8) An assembly as in claim 1 wherein said at least one passage is formed integrally on an external side of said spring carrier.

(Claim 9) An assembly as in claim 1 wherein said at least one passage resides on a rear spring loading flange of said spring carrier.

(Claim 10) An assembly as in claim 1 further comprising a pneumatic transfer conduit, said spring carrier residing over said pneumatic transfer conduit.

(Claim 11) An assembly as in claim 10 wherein said at least one passage allows transfer of a fluid between said spring carrier and said pneumatic transfer conduit.

(Claim 12) An assembly as in claim 1 wherein said at least one passage allows for transfer of a fluid between at least one bearing assembly and a pneumatic transfer conduit.

(Claim 13) A clutch assembly for a fan drive system of an engine comprising:

a translatable clutch housing coupled to a fan;
a rotating shaft coupling a drive pulley of the engine;
a liner residing between and engageable with said translatable clutch housing and said rotating shaft;
a clutch spring engaging said translatable clutch housing with said rotating shaft; and
a spring carrier retaining at least a portion of said clutch spring and comprising at least one axial passage for transfer of fluid through said spring carrier.

(Claim 14) An assembly as in claim 13 wherein said at least one passage comprises at least one of a groove, a channel, a slot, and a hole.

(Claim 15) An assembly as in claim 13 wherein said at least one passage extends axially fore and aft across said spring carrier and allows for passage of a fluid therein.

(Claim 16) An assembly as in claim 13 wherein said at least one passage is formed integrally within a wall of said spring carrier.

(Claim 17) An assembly as in claim 13 wherein said at least one passage is formed integrally on an internal side of said spring carrier.

(Claim 18) An assembly as in claim 13 wherein said at least one passage resides between said spring carrier and a pneumatic transfer conduit.

(Claim 19) An assembly as in claim 13 wherein depth of said at least one passage is larger than a clearance between said spring retainer and a pneumatic transfer conduit.

(Claim 20) An assembly as in claim 13 further comprising a pneumatic transfer conduit, said spring carrier residing over said pneumatic transfer conduit.

(Claim 21) An assembly as in claim 20 wherein said at least one passage allows transfer of a fluid between said spring carrier and said pneumatic transfer conduit.

(Claim 22) An assembly as in claim 13 wherein said at least one passage allows for transfer of a fluid between at least one bearing assembly and a pneumatic transfer conduit.

(Claim 23) A fluidically controlled fan drive system for an engine comprising:

a fan;

a clutch assembly comprising;
a translatable clutch housing coupled to said fan;
a rotating shaft coupling a drive pulley of the engine; and
a liner residing between and engageable with said translatable clutch housing and said rotating shaft;
a clutch spring engaging said translatable clutch housing with said rotating shaft; and
a spring retainer retaining at least a portion of said clutch spring and comprising at least one passage for fluid pressure adjustment within a clutch spring area;
a solenoid fluidically coupled to said clutch assembly; and
a controller fluidically actuating said translatable clutch housing via said solenoid.

(Claim 24) A system as in claim 23 wherein said controller pneumatically actuates said translatable clutch housing.

(Claim 25) A system as in claim 23 wherein said controller hydraulically actuates said translatable clutch housing.

(Claim 26) A method of operating a clutch assembly for an engine comprising:

receiving an engagement transition signal;
altering fluid pressure within a piston reservoir in response to said engagement transition signal;
translating a clutch housing to alter engagement with a rotating shaft in response to said alteration; and
adjusting air pressure within a clutch spring area in response to said translation via a spring carrier having at least one passage.

(Claim 27) A method as in claim 26 wherein adjusting said air pressure air is forced out of said clutch spring area through said at least one passage when transitioning to a clutch disengaged state.

(Claim 28) A method as in claim 26 wherein adjusting said air pressure air is forced into said clutch spring area through said at least one passage when transitioning to a clutch engaged state.

(Claim 29) A clutch assembly for a fan drive system of an engine comprising:

a translatable clutch housing coupled to a fan;
a rotating shaft coupling a drive pulley of the engine;
a liner residing between and engageable with said translatable clutch housing and said rotating shaft;
a clutch spring engaging said translatable clutch housing with said rotating shaft; and

a piston rod comprising;
a fluid channel for fluid pressure actuation of said clutch spring; and
at least one passage for fluid pressure adjustment within a clutch spring area.

(Claim 30) A clutch assembly as in claim 29 wherein said at least one passage comprises an anti-lock groove that extends across a spring carrier and a bearing of the clutch assembly.